

Permit Fact Sheet

General Information

Permit Number:	WI-0063819-03-0
Permittee Name:	Nagel Dairy Farm LLC
Address:	N6841 County V
City/State/Zip:	Deerbrook WI 54424
Discharge Location:	N6841 County Road V Deerbrook, WI 54424 ; NE ¼ Section 7, T32N, R11E
Receiving Water:	Unnamed tributary of the East Branch Eau Claire River within the Black Brook-Eau Claire River Watershed, and groundwaters of the state

Animal Units					
Animal Type	Current AU		Proposed AU (Note: If all zeroes, expansions are not expected during permit term)		
	Mixed	Individual	Mixed	Individual	Date of Proposed Expansion
Dairy Calves (under 400 lbs.)	16	0	0	0	
Milking and Dry Cows	1121	1145	0	0	
Heifers (400 lbs. to 800 lbs.)	108	180	0	0	
Heifers (800 lbs. to 1200 lbs.)	200	182	0	0	
Total	1445	1145	0	0	

Facility Description

Brief Facility Description : Nagel Dairy Farm LLC is an existing Concentrated Animal Feeding Operation (CAFO) that is owned & operated by Jason Nagel. Nagel Dairy Farm LLC consists of one site that is located at N6841 County Road V, Deerbrook, WI. Nagel Dairy Farm LLC currently has 1,445 animal units (801 milking & dry cows, 362 heifers, 82 calves) and is not proposing to expand during the upcoming permit term. Nagel Dairy Farm LLC has total of 2,528 acres available for land application of manure and process wastewater of which 2,518 are spreadable. Of this acreage, 969 acres are owned, and 1,559 acres are controlled through contracts, rental agreements, or manure agreements. Recent upgrades to the facility include the installation of runoff controls for the feed storage area and a feed storage runoff collection basin.

Substantial Compliance Determination

Enforcement During Last Permit: On July 25, 2017, a Notice of Noncompliance was sent for failing to complete schedule 2.6 which required the installation of runoff controls for the feed storage area. On May 15, 2020 a Notice of Violation was also sent for failing to complete the installation of runoff controls under Schedule 2.6. An enforcement conference was held on May 28, 2020 to discuss the violations. New plans were submitted to the

department for approval and runoff controls were installed in the fall of 2021. The facility has completed all previously required actions as part of the enforcement process.

After a desk top review of all records, reports, compliance schedule items, and site visits on 12/13/2019 & 11/18/2021, this facility has been found to be in substantial compliance with their current permit.

Sample Point Designation For Animal Waste		
Sample Point Number	Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)	
001	Sample point 001 is for solid manure sources that are directly land applied and not stored in a waste storage facility. This includes solid sources such as calf hutch manure, maternity pen bedpack, heifer bedpack, steer manure, etc. Representative samples shall be taken for each manure source type.	
002	Sample point 002 is for liquid waste storage facility #1 (WSF #1). WSF #1 is a concrete-lined impoundment located across the road from the dairy south of County V. This facility has a total volume of 11.0 million gallons and a maximum operating level capacity of 9.5 million gallons. Manure & process wastewater is trucked to this facility from all of the other waste storage and reception tanks on the farm on a daily basis. This facility was constructed in 2009 and was last evaluated at the time of construction.	
003	Sample point 003 is for liquid waste storage facility #2 (WSF #2). WSF #2 is a drive in concrete lined reception pit located between the 2 smaller freestall barns. This facility has a total capacity of 74,000 gallons and accepts sand laden manure from the freestall barns to the east & west of the pit. This facility is emptied daily and hauled to the big pit across the road. This facility was constructed in 2012 and was last evaluated at the time of construction.	
004	Sample point 004 is for liquid waste storage facility #3 (WSF #3). WSF #3 is a drive in concrete lined reception pit located between the freestall barns and the red heifer barn. This facility has a total capacity of 62,000 gallons and accepts manure from the red heifer barn and runoff/manure from an outdoor feedlot directly to the north of the pit. This facility is emptied daily or weekly as needed and hauled to the big pit across the road. This facility was constructed in 2013 and was last evaluated at the time of construction.	
005	Sample point 005 is for liquid waste storage facility #4 (WSF #4). WSF #4 is a drive in concrete lined reception pit located on the southwest corner of the largest and newest freestall barn. This facility has a total capacity of 14,000 gallons and accepts sand laden manure from the new freestall barn. Parlor & holding area wastewater is also pumped to this facility from a reception tank on a daily basis. This facility is emptied daily and hauled to the big pit across the road. This facility was constructed in 2012 and was last evaluated at the time of construction.	
006	Sample point 006 is for liquid waste storage facility #5 (WSF #5). WSF #5 is a concrete reception tank located on the west side of the holding area of the large freestall barn. This facility has a total capacity of 4,000 gallons and accepts liquid manure & wastewater from the parlor & holding area. This facility is pumped daily to WSF #4 and then transferred to the big pit for long term storage. This facility was constructed in 2012 and was last evaluated at the time of construction	
007	Sample point 007 is for manure solids removed from the bottom of all liquid waste storage facilities. This includes manure-laden sand solids, manure fiber solids, etc. Representative samples shall be taken from each waste storage facility.	
008	Sample point 008 is for visual monitoring and inspection of the feed storage area and associated runoff control system. The feed storage area is approximately 82,000 square feet in size and is located in the	

Sample Point Designation For Animal Waste		
Sample Point Number	Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)	
	northeast corner of the production site and consists of a series of bunkers with an asphalt floor and a concrete apron & collection channel. Asphalt repairs, the concrete apron and the runoff controls were constructed in 2021. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program. See Permit Schedules.	
009	Sample point 009 is for visual monitoring and inspection of the 2 concrete feedlots and associated runoff control systems located at the farm. Feedlot #1 is located just north of the Red Barn and is approximately 8,500 square feet in size. Runoff from feedlot #1 is stored in WSF #3. Feedlot #2 is located on the southwest corner of the feed storage area and is approximately 2,800 square feet in size. Runoff from feedlot #2 is stored on the lot and hauled as needed to either the solid stacking area or WSF #1. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program.	
010	Sample point 010 is for visual monitoring and inspection of CAFO outdoor vegetated areas located at the dairy. This area is approximately 120 acres in size and is located on the north side of the farm. Proper operation and maintenance is required to ensure sufficient vegetative cover, as defined in s. NR 243.03 is sustained. Quarterly inspections are required and shall be recorded according to monitoring program.	
011	Sample point 011 is for visual monitoring and inspection of all production site storm water conveyance systems. This includes roof gutter and downspout structures, drainage tile systems, grassed waterways and other diversion systems that transport uncontaminated storm water. Proper operation and maintenance is required to keep uncontaminated runoff diverted away from manure and process wastewater handling systems. Weekly inspections are required and shall be recorded according to monitoring program.	
012	Sample point 012 is for solid manure land applied from the heifer barn stacking pad. The stacking pad is located on the east end of the northern most heifer barn & has a concrete working surface, concrete walls, and runoff flows to an underground reception tank. Heifer barn & calf barn solid manure is stored here. The pad is approximately 2,500 square feet in size and was constructed in 1999.	
013	Sample point 013 is for solid manure land applied from approved headland stacking sites. Representative samples must be taken prior to land application. Stacks are defined as part of the production area and therefore subject to the production area discharge limitations of this permit. Weekly inspections of stack runoff controls are required and shall be recorded according to monitoring program.	
014	Sample point 014 is for liquid waste storage facility #6 (WSF #6). WSF #6 is a concrete-lined impoundment located on the east side of the production area southeast of the feed storage area. This facility has a total volume of 840,000 gallons and a maximum operating level capacity of 430,000 gallons. Leachate & feed storage area runoff gravity flow to this facility. Manure will not normally be stored in this facility. Plans for this facility were approved by the department & it was constructed in 2021. See permit schedules.	

1 Livestock Operations - Proposed Operation and Management

Production Area Discharge Limitations

Beginning on the effective date of the permit, the permittee may not discharge pollutants from the operation's production area (e.g., manure storage areas, outdoor animal lots, composting and leachate containment systems, milking center

wastewater treatment/containment systems, raw material storage areas) to navigable waters, except in the event a 25-year, 24-hour rainfall event (or greater) causes the discharge from a structure which is properly designed and maintained to contain a 25-year, 24-hour rainfall event for this location as determined under s. NR 243.04. If an allowable discharge occurs from the production area, state water quality standards may not be exceeded.

Runoff Control

The permit requires control of contaminated runoff from all elements of the production area to prevent a discharge of pollutants to navigable waters in accordance with the Production Area Discharge Limitations and to comply with surface water quality standards and groundwater standards. Beginning on the effective date of this permit, (if needed) interim measures shall be implemented to prevent discharges of pollutants to navigable waters. In addition, permanent runoff control system(s) shall be designed, operated and maintained in accordance with the requirements found in USDA Natural Resources Conservation Service standards and ch. NR 243, Wis. Adm. Code. If any upgrading or modifications to runoff controls are necessary, formal engineering plans and specifications must be submitted to the Department for approval.

Manure and Process Wastewater Storage

The permit requires the operation to have adequate storage for manure and process wastewater and that storage or containment facilities are designed, operated and maintained to prevent overflows and discharges to waters of the state. In order to prevent overflows, the permittee must maintain levels of materials in liquid storage or containment facilities at or below certain levels including a one foot margin of safety that can never be exceeded. If any upgrading or modifications to the storage facilities are necessary, formal engineering plans and specifications must be submitted to the Department for approval.

The permittee currently has approximately 351 days of storage for liquid manure. The permittee must maintain 180 days of storage, unless temporary reductions in required storage are approved by the Department.

Solid Manure Stacking

The operation has proposed to stack solid manure. All stacking of solid manure shall be done in accordance ch. NR 243, Wis. Adm. Code, which includes restrictions from NRCS Standard 313. Stacking of manure is considered to be part of the production area and is subject to the Production Area Discharge Limitations.

Ancillary Service and Storage Areas

The permittee shall take preventative maintenance actions and conduct visual inspections to minimize pollutant discharges from areas of the operation that are not part of the production area or land application areas. These areas are called ancillary service and storage areas and include access roads, shipping and receiving areas, maintenance areas, refuse piles and CAFO outdoor vegetated areas.

Nutrient Management

With 1,445 animal units (801 milking & dry cows, 362 heifers, 82 calves), it is estimated that approximately 8,120,000 gallons of manure and process wastewater and 6,807 tons of solid manure will be produced per year. The permittee owns approximately 969 acres of cropland and 1558.8 acres are controlled through contracts, rental agreements, or leases, or under manure agreements. Given the rotation commonly used by the permittee, 2,518 acres are available (or open) to receive manure and process wastewater on an annual basis. The permit requires all landspreading of manure and process wastewater be completed in accordance with an approved nutrient management plan. The permit will require sampling and analysis of manure and process wastewater that will be landspread. Landspreading rates must be adjusted based on sample analysis. The permit requires the permittee to maintain a daily log that documents landspreading activities. The permit also requires the submittal of an annual report that summarizes all landspreading activities. Plans must be updated annually to

reflect cropping plans and other operational changes. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets.

The permittee is required to implement a number of practices to address potential water quality impacts associated with the land application of manure and process wastewater. Among the permit conditions are restrictions on manure ponding, restrictions on runoff of manure and process wastewater from cropped fields, and setbacks from wells and direct conduits to groundwater (e.g., sinkholes, fractured bedrock at the surface). In addition, the permittee must implement a phosphorus based nutrient management plan that addresses phosphorus delivery to surface waters by basing manure and process wastewater applications on soil test phosphorus levels or the Wisconsin Phosphorus index. Additional phosphorus application restrictions apply to fields that are high in soil test phosphorus (>100 ppm).

The permittee must also implement conservation practices when applying manure near navigable waters and their conduits, referred to as the Surface Water Quality Management Area (SWQMA). These practices include a 100-foot setback from navigable waters and their conduits, a 35-foot vegetated buffer adjacent to the navigable water or conduit, or a practice that provides equivalent pollutant reductions equivalent to or better than the 100-foot setback.

In addition, the permittee must comply with restrictions on land application of manure and process wastewater on frozen or snow-covered ground. Included in these restrictions is a prohibition on surface applications of solid manure ($\geq 12\%$ solids) on frozen or snow-covered ground during February and March.

Monitoring and Sampling Requirements

The permittee must submit a monitoring and inspection program that outlines how the permittee will conduct self-inspections to determine compliance with permit conditions. These self-inspections include visual inspections of water lines, diversion devices, storage and containment structures and other parts of the production area. The permit requires periodic inspections and calibrations of landspreading equipment. The permittee must take corrective actions to problems identified inspections or otherwise notify the Department. Samples of manure, process wastewater and soils receiving land applied materials from the operation must also be collected and analyzed.

Sampling Points

The permit identifies the different sources of land applied materials (e.g., manure storage facilities, milking centers, egg-washing facilities) as “Sampling Points.” For these Sampling Points, the permittee is required to sample and analyze the different sources for nutrients and other parameters which serve as the basis for determining rates of application for these materials. Other areas are also identified as Sampling Points as a means of identifying them as areas requiring action by the permittee, such as an upgrade or evaluation of a certain system or structure (e.g., runoff control systems), even though sampling is not actually required.

Sample Point Number: 001- Misc Solid Manure; 007- WSF Solids Removal; 012- Stacking Pad (Solids); 013- Headland Stacking Sites

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total		lbs/ton	Quarterly	Grab	
Nitrogen, Available		lbs/ton	Quarterly	Calculated	
Phosphorus, Total		lbs/ton	Quarterly	Grab	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Phosphorus, Available		lbs/ton	Quarterly	Calculated	
Solids, Total		Percent	Quarterly	Grab	

1.1.1 Changes from Previous Permit

Sample point language was updated to more accurately describe existing facilities. Sample Points 012 and 013 were added to the permit to reflect other sources of solid manure that is land applied and requires sampling.

1.1.2 Explanation of Operation and Management Requirements

Solid manure sources must be properly sampled and land applied according to the permit and nutrient management plan.

Sample Point Number: 002- WSF #1:Big Pit; 003- WSF #2:Tractor Pit; 004- WSF #3:Red Barn; 005- WSF #4:New Barn; 006- WSF #5:Parlor, and 014- WSF #6: Leachate

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total		lb/1000gal	2/Month	Grab	
Nitrogen, Available		lb/1000gal	2/Month	Calculated	
Phosphorus, Total		lb/1000gal	2/Month	Grab	
Phosphorus, Available		lb/1000gal	2/Month	Calculated	
Solids, Total		Percent	2/Month	Grab	

1.1.3 Changes from Previous Permit

Sample point language was updated to more accurately describe existing facilities. Sample Point 014 was added to the permit to account for process wastewater that will be land applied from the newly constructed leachate basin.

1.1.4 Explanation of Operation and Management Requirements

Liquid manure must be properly stored and land applied according to the permit and nutrient management plan.

Sample Point Number: 008- Feed Storage Area; 009- Concrete Feedlots; 010- CAFO Outdoor Vegetated Areas, and 011- Storm Water Runoff

1.1.5 Changes from Previous Permit

Sample point language was updated to more accurately describe existing facilities at the production site.

1.1.6 Explanation of Operation and Management Requirements

Proper operation and maintenance is required to ensure unlawful discharges to waters of the state do not occur. Weekly or quarterly inspections are required and shall be recorded according to the monitoring plan.

2 Schedules

2.1 Emergency Response Plan

Required Action	Due Date
Develop Emergency Response Plan: Update the written Emergency Response Plan within 30 days of permit coverage, and submit to the Department.	04/01/2022

2.2 Monitoring & Inspection Program

Use of the department's monitoring and inspection program template is encouraged, but optional.

Required Action	Due Date
Proposed Monitoring and Inspection Program: Consistent with the Monitoring and Sampling Requirements subsection, the permittee shall submit a proposed monitoring and inspection program within 60 days of the effective date of this permit.	05/01/2022

2.3 Annual Reports

Submit Annual Reports by January 31st of each year in accordance with the Annual Reports subsection in Standard Requirements.

Required Action	Due Date
Submit Annual Report #1: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2023
Submit Annual Report #2: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2024
Submit Annual Report #3: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2025
Submit Annual Report #4: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2026
Submit Annual Report #5: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2027
Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed.	

2.4 Nutrient Management Plan

Submit annual nutrient management plan (NMP) updates by March 31 of each year. Note, in addition to annual NMP updates, submit NMP amendments and substantial revisions to the department for written approval prior to implementation of any changes to the NMP.

Required Action	Due Date
Management Plan Submittal: Submit any necessary updates to the Nutrient Management Plan to meet the conditions outlined in this permit (see conditions in the Livestock Operational and Sampling Requirements section).	
Submit NMP Update #1: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2022
Submit NMP Update #2: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2023
Submit NMP Update #3: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2024
Submit NMP Update #4: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2025
Submit NMP Update #5: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2026
Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed.	

2.5 Runoff Control System - Installation

Applicable to sample point 008 & 014, Feed Storage Area Runoff Controls

Required Action	Due Date
Submit Post Construction: Submit Post Construction documentation of runoff control system in accordance with NR 243.15 (10).	04/30/2022

2.6 CAFO Outdoor Vegetated Management Plan

Applicable to sample point 010.

Required Action	Due Date
Submit CAFO Outdoor Vegetated Management Plan: Submit a Management Plan for Department review and approval for the CAFO Outdoor Vegetated area. The plan must include information detailing the pasture boundaries, density of livestock, timeframes, vegetative type, percent cover, and other management practices to insure proper operation of the area as a CAFO Outdoor Vegetated Area. Once approved, implement the Management Plan.	06/30/2022

2.7 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	08/31/2026

2.8 Explanation of Schedules

Emergency Response Plan, Monitoring and Inspection Program – Schedules consistent with permit requirements

Annual Reports, Nutrient Management Plan, Submit Permit Reissuance Application - Schedules consistent with permit requirements.

2.5 is required to ensure that post construction documentation is submitted for the feed storage runoff collection system as required by NR 243.15 (10)

2.6 is a standard requirement for farms that want to operate a CAFO Outdoor Vegetated Area.

Other Comments:

Animal Units in the NMP Conditional approval letter and NMP Narrative in the application state 1,537 current Animal Units, however the correct amount is 1,445.

Attachments:

Plan Approval Letter(s)

NMP Conditional Approval

Days of Storage Calculations – R-2020-0012

Feed Storage Runoff Collection Approval – R-2021-0013

Compliance Inspection Reports

1/9/2020 Reissuance Inspection

11/18/2021 Compliance Inspection

Public Notice

Proposed Expiration Date:

2/28/2027

Prepared By:

Brian Hanson Wastewater Specialist

Date: 1/4/2022



November 2, 2021

Langlade County
Approval

Jason Nagel
Nagel Dairy Farm LLC
N6841 County V
Deerbrook, WI 54424

SUBJECT: Conditional Approval of Nagel Dairy Farm LLC Nutrient Management Plan, WPDES Permit No. 0063819-02-0

Dear Mr. Nagel:

After completing a review of Nagel Dairy Farm LLC 2021-2025 Nutrient Management Plan (NMP) the Wisconsin Department of Natural Resources (Department) is providing conditional approval that it is consistent with Nutrient Management Requirements in s. NR 243, Wis. Adm. Code. This part of your WPDES permit application is now ready for the public notice and comment process as required by Ch. 283 Stats.

Before applying manure onto approved fields each season, the Department recommends Nagel Dairy Farm LLC review the NMP with those individuals involved with manure applications to ensure all remain familiar with the approved manure spreading protocol, spreading maps, field and map verification, record keeping requirements, and all the conditions of this approval. Specifically, some fields in Nagel Dairy Farm LLC may have:

- Soils that may have bedrock or groundwater within 24 inches of surface,
- Multiple setback areas due to streams, conduits to streams, grassed waterways, wetlands or wells, and
- Evidence of possible soil erosion/flow channels. Note: road ditches or other man made channels may be considered flow channels or conduits to navigable water and may be subject to a SWQMA and setback.

Reviewing the NMP and checking fields for these features and soil conditions prior to manure applications will help Nagel Dairy Farm LLC maintain compliance with their WPDES permit and Ch. NR 243 requirements.

FINDINGS OF FACT

The Department confirms that:

1. A current dairy herd size of 1527 animal units (801 milking & dry cows, 362 heifers, and 82 calves). Currently there are no planned expansions in the next permit term.
2. Manure generation and spreading records indicate your herd will annually generate approximately 8,120,000 gallons of manure and process wastewater and 6,807 tons of solid manure in the first year of the permit term.
3. The use of application restriction options 1, 2, and 5 within surface water quality management areas.
4. The use of phosphorus delivery method P Index.
5. That Nagel Dairy Farm LLC currently has 2,528.2 acres (969.4 owned and 1558.8 controlled through contracts, rental agreements or leases, or under manure agreements) of which 2518 are spreadable acres.

6. That no fields are directly adjacent to or have high potential to deliver nutrients and sediment to a 303(d) impaired water.
7. That no fields are directly adjacent to or have high potential to deliver nutrients and sediment to outstanding/exceptional waters.
8. That no fields are tiled
9. That all fields will be checked for the following features prior to/during manure or process wastewater applications: soil areas with possible shallow groundwater (i.e., within 24 inches of surface) at the time of manure application; required setbacks associated with wells, navigable waters, conduits to navigable waters, grassed waterways, wetlands, possible soil erosion/flow channels.
10. That surface applications of manure will not be completed when precipitation capable of producing runoff is forecasted within 24 hours of the time of planned application.

CONDITIONAL NUTRIENT MANAGEMENT PLAN APPROVAL

The Department hereby approves the 2021-2025 Nagel Dairy Farm LLC Nutrient Management Plan subject to the following conditions and the applicable requirements of Ch. NR 243, Wis. Adm. Code:

FIELD AND MANURE MANAGEMENT

1. Fields not included in the NMP and new fields shall not receive manure or process wastewater applications until they have been properly soil sampled, entered into Snap Plus, evaluated for their nutrient needs, and approved by the Department.
2. If existing fields yield a soil test results equal to or greater than 200 ppm P, those fields would be prohibited from receiving manure or process wastewater applications, unless you obtain Department approval in accordance with NR 243.14(5)(b)2., Wis. Adm. Code.
3. All liquid manure samples collected may be analyzed, at a minimum, for percent dry matter, total nitrogen, percent $\text{NH}_4\text{-N}$, percent $\text{NO}_3\text{-N}$, phosphorus, potassium, and sulfur.
4. If manure sample results have a dry matter (DM) content less than 2.0% and the percent ammonium (NH_4^+) is greater than 75% of the total N, Nagel Dairy Farm LLC may use the following equation to adjust the first year available nitrogen when applications are injected or incorporated within 1 hour:

$$\text{First-Year Available N} = \text{NH}_4\text{-N} + [0.25 \times (\text{Total N} - \text{NH}_4\text{-N})]$$

5. Nagel Dairy Farm LLC shall record daily manure applications by using form 3200-123A.
6. Nagel Dairy Farm LLC shall annually submit a spreading report that summarizes the land application activities listed under NR 243.19(3)(c)5., Wis. Adm. Code by using form 3200-123.

WINTER SPREADING

7. Liquid manure applications during winter conditions, as defined by NR 243.14(7), Wis. Adm. Code, are prohibited with the exception of emergency applications.
8. The following field(s) are approved for winter spreading solid manure, emergency applications of liquid manure and frozen liquid manure:

• 100	• 110	• 170	• 173	• 210
• 101	• 111	• 171	• 191	• 211
• 102	• 112	• 172	• 192	• 212

- | | | | |
|-------|----------|--------------|----------|
| • 213 | • 230 | • GLEICH 2 | • KOSS 3 |
| • 214 | • 240 | • GLEICH 3 | • KOSS 7 |
| • 215 | • EMIL | • GLEICH 4 | • Max 1 |
| • 216 | MATUSZEW | • GLEICH B1- | • Max 6 |
| • 221 | SKI | 2 | • Max 8 |

9. Winter spreading of solid and liquid manure may not occur during the “high risk runoff period” pursuant to s. NR 243.14(6)(c) and NR 243.14(7)(c), respectively.
10. Winter applications of liquid manure shall only occur under emergency situations, after notifying the Department and receiving verbal approval.
11. Liquid applications shall be limited to 3,500 gallons per acre or 30 lbs. P per acre, whichever is less, on slopes 2-6% and 7,000 gallons per acre or 60 lbs. P per acre, whichever is less, on slopes 0-2%. Winter applications of solid manure shall be limited to 60 lbs. P per acre.

HEADLAND STACKING

12. The following sites are approved for non-winter and winter headland stacking:

- | | | | |
|-------|---------|-----------------|-----------|
| • 100 | • 211 | • GLEICH 1 | • KOSS 3 |
| • 110 | • 212 | • GLEICH 4 | • KOSS 7 |
| • 111 | • 214 | • GLEICH B1-2 | • EMIL |
| • 112 | • 215 | • GLEICH LC | MATUSZEWS |
| • 170 | • 216 | • Jack McDougal | KI |
| • 191 | • 221 | • KOSS NORTH | |
| • 200 | • Max 1 | • KOSS SOUTH | |

MANURE & PROCESS WASTEWATER IRRIGATION

13. Irrigation of manure or process wastewater is prohibited.

SUBMITAL AND RECORDKEEPING REQUIREMENTS

14. A copy of this conditional approval shall be included in all future annual Nutrient Management Plan Updates in addition to the NR 243 and NRCS 590 checklists.

This conditional approval does not limit the Department’s regulatory authority to require NMP revisions (based upon new information or manure irrigation research findings) or request additional information in order to confirm or ensure your farm operation remains in compliance with NR 243 and your WPDES permit conditions. If additional information, project changes or other circumstances indicate a possible need to modify this approval, the Department may ask you to provide further information relating to this activity.

Please keep in mind that approval by the Department of Natural Resources – Runoff Management Program does not relieve you of obligations to meet all other applicable federal, state or local permits, zoning and regulatory requirements.

If you have any questions regarding this approval I can be reached at 920-360-9010 or Brandon.Flenz@Wisconsin.gov.

Sincerely,



Brandon Flenz
WDNR Agricultural Runoff Specialist
Wisconsin Department of Natural Resources

cc: Brian Hanson, WDNR Agricultural Runoff Specialist (Brian.Hanson@wisconsin.gov)
Joseph Baeten, WDNR Watershed Field Supervisor (Joseph.Baeten@wisconsin.gov)
Chris Clayton, WDNR Ag Runoff Section Chief (Christopherr.Clayton@Wisconsin.gov)
Ashley Scheel, WDNR CAFO NMP Reviewer (Ashley.Scheel@Wisconsin.gov)
Tony Salituro, WDNR Intake Specialist (Anthony.Salituro@Wisconsin.gov)
Chris Arrowood, Langlade County Land Conservationist (carrowood@co.langlade.wi.us)
Chuck Bolte, AgSource Laboratories (cbolte@agsource.com)
File



May 5, 2021

FILE REF: R-2020-0012
WPDES Permit #: WI-0063819

Jason Nagel
Nagel Dairy Farm, LLC
N6841 County V
Deerbrook, WI 54424

Subject: Evaluation Review for Days of Storage for Nagel Dairy Farm, LLC, SE¼, Sec 07, T32N, R11E,
Neva Township, Langlade County – NO ADDITIONAL ACTION REQUIRED

Dear Mr. Nagel:

This letter is to inform you that the Wisconsin Department of Natural Resources (Department) has completed its review of the calculation of days of storage submitted under certification by , MSA Professional Services on January 24, 2020 with revisions received on May 5, 2021 on behalf of Nagel Dairy Farm, LLC.

The Department reviewed the submitted calculations in accordance with s. NR 243.16(1)(c), Wis. Adm. Code. Under s. NR 243.16(3), Wis. Adm. Code, the Department may require additional practices, conditions, or permittee actions based on Department review of the submitted evaluation. For the following liquid manure storage calculations, the Department has determined **no additional actions** on your part are required.

Days of Available Liquid Waste Storage: The submitted information states that Nagel Dairy Farm, LLC has 351 days of liquid waste storage based on the volumes listed in the table below with respect to s. NR 243.15(3)(i) to (k), Wis. Adm. Code. The current number of animal units provided for the calculation is 1,446. Only milking and dry cows contribute to liquid manure, with the remaining animals handled as solid manure. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values and a collection period of 365 days. All runoff, up to the 25yr – 24hr storm, is collected from the existing feed lot. No runoff from the existing feed storage area is collected in permanent storage. Plans to address this have been approved (see Project Reference: R-2021-0013).

Total Liquid Waste Storage:	11,193,618 gallons
Total Solids Storage	270,151 gallons
Total 25-yr, 24-hr Precip. on Storage	362,753 gallons
Total 25-yr, 24-hr Collected Runoff	12,789 gallons
Total Freeboard Vol.	987,570 gallons
Total MOL Liquid Waste Storage:	9,560,355 gallons

Manure and Bedding:	5,966,733 gallons
Parlor Wastewater	2,094,370 gallons
Total Feed Storage Leachate:	0 gallons
Total Feed Storage Runoff Collected:	0 gallons
Total Feedlot Runoff Collected:	98,529 gallons
Net Precipitation on Storage Surfaces:	1,787,061 gallons
Total Liquid Waste Stored Below the MOL	9,946,693 gallons

Should you have any questions, please contact Tony Salituro, DNR Madison office or your regional CAFO Specialist.

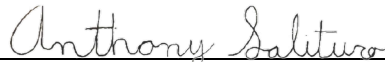
NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to WIS. STAT. §§ 227.52 and 227.53, you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to WIS. STAT. § 227.42, you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with WIS. ADMIN. CODE § NR 2.05(5), and served on the Secretary in accordance with WIS. ADMIN. CODE § NR 2.03. The filing of a request for a contested case hearing does not extend the 30-day period for filing a petition for judicial review.

**STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES**

Bernie Michaud, PE
CAFO Engineer Supervisor
Watershed Management Program



Tony Salituro, E.I.T.
Engineering Intern
Watershed Management Program

Email: Jason Nagel; Manager
Nagel Dairy Farm, LLC
(715) 623-6086; nagels4@yahoo.com;

Jenise Anderson
MSA Professional Services
(608) 355-8885; jranderson@msa-ps.com

Chris Arrowood
Langlade County
(715) 627-6292; carrowood@co.langlade.wi.us

Matt Woodrow
DATCP
(920) 427-8505; matthew.woodrow@wisconsin.gov

Aaron O'Rourke
DNR, Eau Claire
(715) 839-3775; aaron.orourke@wisconsin.gov

Brian Hanson
DNR, Northeast Region
(920) 366-3302; brian.hanson@wisconsin.gov

Joe B Baeten
DNR, Northeast Region
(920) 662-5196; Joseph.Baeten@wisconsin.gov

Tony Salituro
DNR, Central Office
(608) 444-2869; anthony.salituro@wisconsin.gov

Ashley Scheel
DNR, Central Office
(608) 261-6419; ashley.scheel@wisconsin.gov



March 30, 2021

FILE REF: R-2021-0013
WPDES Permit #: WI-0063819

Jason Nagel
Nagel Dairy Farm, LLC
N6841 County Hwy V
Deerbrook, WI 54424

Subject: Conditional Approval of Plans & Specifications for a Feed Storage Modification, Feed Storage Runoff Controls, and Waste Storage Pond at, Nagel Dairy Farm, LLC at T32N, R11E, Section 7 in Neva Township, Langlade County

Dear Mr. Nagel:

This letter is to inform you that the Wisconsin Department of Natural Resources (Department) has reviewed and conditionally approves the above referenced plans and specifications, submitted under certification by Andrew Skwor, P.E., MSA Professional Services and received on January 26, 2021 with revisions received on March 23 and 29, 2021. The review was conducted in accordance with s. 281.41, Wis. Stats., chs. NR 151, NR 213 and NR 243, Wis. Adm. Code, and applicable NRCS Standards. The attached engineering report describes the project, lists standards that apply and provides compliance analysis. Questions may be directed to the assigned regional staff or the review engineer Jeff Kreider (contact information is at the end of this letter).

Proposed Project: The proposed project includes the following facilities that are reviewable under s. NR 243.15, Wis. Adm. Code: The proposed project will replace interior bunkers walls with an asphalt floor, construct feed storage runoff controls and a process wastewater only pond.

Conditions of Approval: The plans and specifications for project number R-2021-0013 are hereby approved and subject to chs. NR 151, NR 213 and NR 243, Wis. Adm. Code, and the conditions listed below:

1. **Revisions:** If revisions are made to the approved plans and specifications, revised plans and specifications shall be submitted for approval modification, in accordance with ss. NR 108.03 and NR 108.04, Wis. Adm. Code, and s. 281.41(1)(c), Wis. Stats. Submit revised plans and specifications via the Department's e-Permitting System. **Note:** This includes revisions for local permitting. If a formal approval modification may not be warranted, contact the review engineer to confirm.
2. **Approval Period:** In accordance with ss. NR 243.15(1)(a)1., and NR 108.04(2)d., Wis. Adm. Code, if construction is not commenced within 2 years from the approval date, the approval is void, and a new approval must be obtained prior to commencing construction.
3. **Notification:** Prior to construction and when construction is complete, notify the Department's regional contact and county contact provided a copy of the approval (contact information is at the end of this letter).
4. **Inspection:** During the construction of critical components, inspection shall be performed by a Wisconsin registered professional engineer or other qualified third party (excludes the owner and construction contractor and their employees).
5. **Post-Construction Documentation:** In accordance with the permit, a post-construction report must be submitted to the DNR's e-Permitting website (<http://dnr.wi.gov/permits/water>) within 60 days of completing construction. The report must include documentation specified by s. NR 243.15(10), Wis. Adm. Code.

Limitation of Approval: The Department reserves the right to order changes or additions should conditions arise making this necessary. This approval is not to be construed as a determination on the issuance of a Wisconsin Pollutant Discharge Elimination System Permit or opinion as to the ability of the

proposed system to comply with effluent limitations in such a permit, approval of an Environmental Impact Statement that may be prepared, or approval for any activities requiring a permit under chs. 30 or 31, Wis. Stats. Where necessary, plans and specifications should be submitted to the Department of Safety and Professional Services or other state or local agencies to ensure conformance with applicable codes or regulations of such agencies.

Tax Treatment: Tangible personal property, that becomes part of a waste treatment of pollution abatement plant or equipment, may be exempt from sales tax under s. 77.45(26), Wis. Stats. Similarly, property purchased or constructed as a waste treatment facility and used for industrial waste treatment may be exempt from general property taxes under s. 70.11(21), Wis. Stats. A prerequisite to exemption is filing a statement on prescribed forms. To obtain the forms, and information about this sales tax exemption, please contact the Department of Revenue, P.O. Box 8933, Madison, WI 53708, or check their website <http://www.revenue.wi.gov/>.

NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to WIS. STAT. §§ 227.52 and 227.53, you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to WIS. STAT. § 227.42, you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with WIS. ADMIN. CODE § NR 2.05(5), and served on the Secretary in accordance with WIS. ADMIN. CODE § NR 2.03. The filing of a request for a contested case hearing does not extend the 30-day period for filing a petition for judicial review.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
For the Secretary



Bernie Michaud, P.E.
CAFO Engineer Supervisor
Watershed Management Program

Enclosures: Wisconsin DNR Engineering Report

email: Andrew Skwor; MSA Professional Services
(608) 355-8936; askwor@msa-ps.com
Chris Arrowood; Langlade County
(715) 627-6292; carrowood@co.langlade.wi.us
Matt Woodrow; DATCP
(920) 427-8505; matthew.woodrow@wisconsin.gov
Aaron O'Rourke; DNR, Eau Claire
(715) 839-3775; aaron.orourke@wisconsin.gov

Brian Hanson; DNR, Northeast Region
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Joe Baeten; DNR, Northeast Region
(920) 662-5196; Joseph.Baeten@wisconsin.gov
Jeff Kreider; DNR, Central Office
(608) 212-6547; Jeff.Kreider@wisconsin.gov
Ashley Scheel; DNR, Central Office
(608) 261-6419; ashley.scheel@wisconsin.gov

WISCONSIN DEPARTMENT OF NATURAL RESOURCES ENGINEERING REPORT**GENERAL INFORMATION****Farm Name:** Nagel Dairy Farm, LLC**WPDES Permit#:** WI-0063819**Location Address:** N6841 County Hwy V**DNR Project #:** R-2021-0013**Engineering Plans Certified by:****Initial Submittal:****Revised Submittal(s):**

Andrew Skwor, P.E.

January 26, 2021

March 23 and 29, 2021

Site Assessment: Geographical features of the site include soils that are Billyboy silt loam. The nearest stream is approximately 9,000 ft to the south and the nearest wetland is approximately 900 ft to the north of the proposed construction area. Clean runoff will be diverted around waste handling areas to existing waterways. No karst features are known to exist within 1,000 ft of the proposed facilities or systems. No ground water supply wells are located within 250 feet of the proposed facilities or systems.

Soil investigations were performed in November 2018 consisting of four test pits in the proposed project area, which found the primary subsoils consist of silt loams (ML) and sandy loams (SM). Neither bedrock nor saturated sub-soils were found.

PROJECT SUMMARY**Proposed Facilities:**

Feed Runoff Waste Storage (WSF): The proposed design was submitted to meet NRCS 313 (10/17R), NRCS 522, Table 2, Column B and Table 2A, Column B (10/17R). The design is in compliance with ch. NR 213 and s. NR 243.15(3), Wis. Adm. Code. The proposed waste storage pond will be southeast of the existing feed storage area. Below is a summary of what is proposed.

- The proposed WSF will be rectangular shaped with interior top dimensions of 140 ft x 140 ft x 7.5 (on average) ft deep. The embankment walls and floor are designed with 5-inch thick steel reinforced concrete with 6-inch PVC waterstop. Beneath the concrete floor will be 2 feet of a soil sub liner.
- The proposed storage will have a total and maximum operating level (MOL) volume of 840,383 gallons and 427,373 gallons respectively.
- The floor elevation will be 1,578-1,579 ft and the MOL elevation will be 1,581.7 ft. Interior and exterior embankment slopes will be 2.5:1 and 4:1 respectively with a berm width of 8 ft.
- A 20 ft x 20 ft x 2 ft deep sump will be constructed in the northwest corner.
- An emergency spillway will be constructed at the southwest corner. The top of the spillway (1585.0 ft) will dictate the MOL marker elevation and volume. The purpose of the overflow is to predetermine the direction of a potential overtopping should it occur, to assist in managing the event. The berm top elevation will be 1586.0.

Waste Transfer System: The proposed design was submitted to meet with NRCS Standard 634 (1/14). The design is in compliance with s. NR 243.15(4), Wis. Adm. Code.

- At the southeastern area of the apron a 6-inch thick steel reinforced concrete collection channel will be constructed to direct leachate and runoff to a transfer pipe. The channel will be 10 feet wide on the bottom by 1 foot deep with 2.5:1 side slopes.
- A 24-inch HDPE gravity flow pipe will transfer leachate and runoff from the proposed collection channel to the feed runoff waste storage pond.
- A 6-inch thick collection curb will be constructed along the southeast and southern sides of the concrete feed storage area to direct leachate and runoff to the concrete collection channel.

Feed Storage Area Modification: The proposed design was submitted to meet with NRCS Standard 629 Table 1 (1/17). The design is in compliance with s. NR 243.15(9), Wis. Adm. Code. The interior T-wall bunker walls will be removed, leaving a 6-foot wide bare area from the north to the south end. Below is a summary of what is proposed.

- The area where the interior T-walls were located will be replaced with a 6 ft x 148 ft, 5-inch-thick asphalt working surface. Beneath the working surface will be 6 inches of $\frac{3}{4}$ inch stone for the drainage layer with a soil liner below. The proposed design will protect the drain tile from being crushed.
- A 4-inch drain tile will be installed in the center running from north to south, flowing onto a proposed feed storage apron. The apron will also direct leachate and runoff to the proposed collection swale.

PURPOSE OF THIS REPORT: This report documents review of plans and specifications for each structure or practice indicated below, including findings regarding the structure or practice's compliance with applicable standards. The reviewer considered if management and site assessment were conducted, documented, and reflected in the final design, and if proper construction and related plans (operation and maintenance, inspection, erosion control if applicable) were provided, and demonstrated compliance with applicable rules standards.

DECISION RECOMMENDATION: Based on my review completed on March 25, 2021, the proposed plans and specifications meet ch. NR 243, Wis. Adm. Code, and applicable NRCS Standards. Therefore, I recommend the plans and specifications be approved.



Jeff Kreider

Water Resources Engineer



1/9/2020

Jason Nagel
Nagel Dairy Farm LLC
N6841 County V
Deerbrook, WI 54424

WPDES Permit No. WI-0063819-02-0

Langlade County

Subject: 12/13/2019 Permit Reissuance Inspection

Dear Mr. Nagel:

On December 13, 2019 the Department of Natural Resources met with the representatives of Nagel Dairy Farms to conduct a full compliance inspection for permit reissuance. Department observations and a record of our conversations are included in the enclosed report.

The final pages of the report include a summary section identifying areas of concern as well as a list of actions items to be completed prior to permit reissuance. Department staff are reviewing available information and will contact you to schedule a meeting to discuss timelines related to feedpad runoff control installation.

Nagel Dairy Farms was required to submit a complete permit reissuance application through the Department's ePermitting System no later than January 1, 2020. To date, the department has not received this application. Please submit a complete permit reissuance application by **January 31, 2020**. Failure to respond in a timely manner may result in escalated enforcement actions. If you have any questions regarding the final application materials or the ePermitting submittal process feel free to contact me or Tony Salituro at (608) 267-7150 or Anthony.Salituro@Wisconsin.gov.

Sincerely,

Brian Hanson
Agricultural Runoff Management Specialist
920-366-3302
brian.hanson@wisconsin.gov

Enc: December 13, 2019 Inspection Report

ec: Molly McKay - Langlade County LCD
Joe Baeten, Tony Salituro, Holly Stegemann - DNR
Chuck Bolte - Agsource
Andy Skwor - MSA

CAFO Compliance Inspection Report



Inspection Date: 12/13/2019

Report Final Date: 1/9/2020

Operation Name: Nagel Dairy Farm LLC

WPDES Permit #: WI-0063819-02-0

Farm Address: N6841 County Road V, Deerbrook, Wisconsin

On-Site Representative(s): Jason Nagel (Nagel Dairy Farms LLC), Chuck Bolte (Agsource), Andrew Skwor(MSA)

Report Author: Brian Hanson (Ag Runoff Specialist)

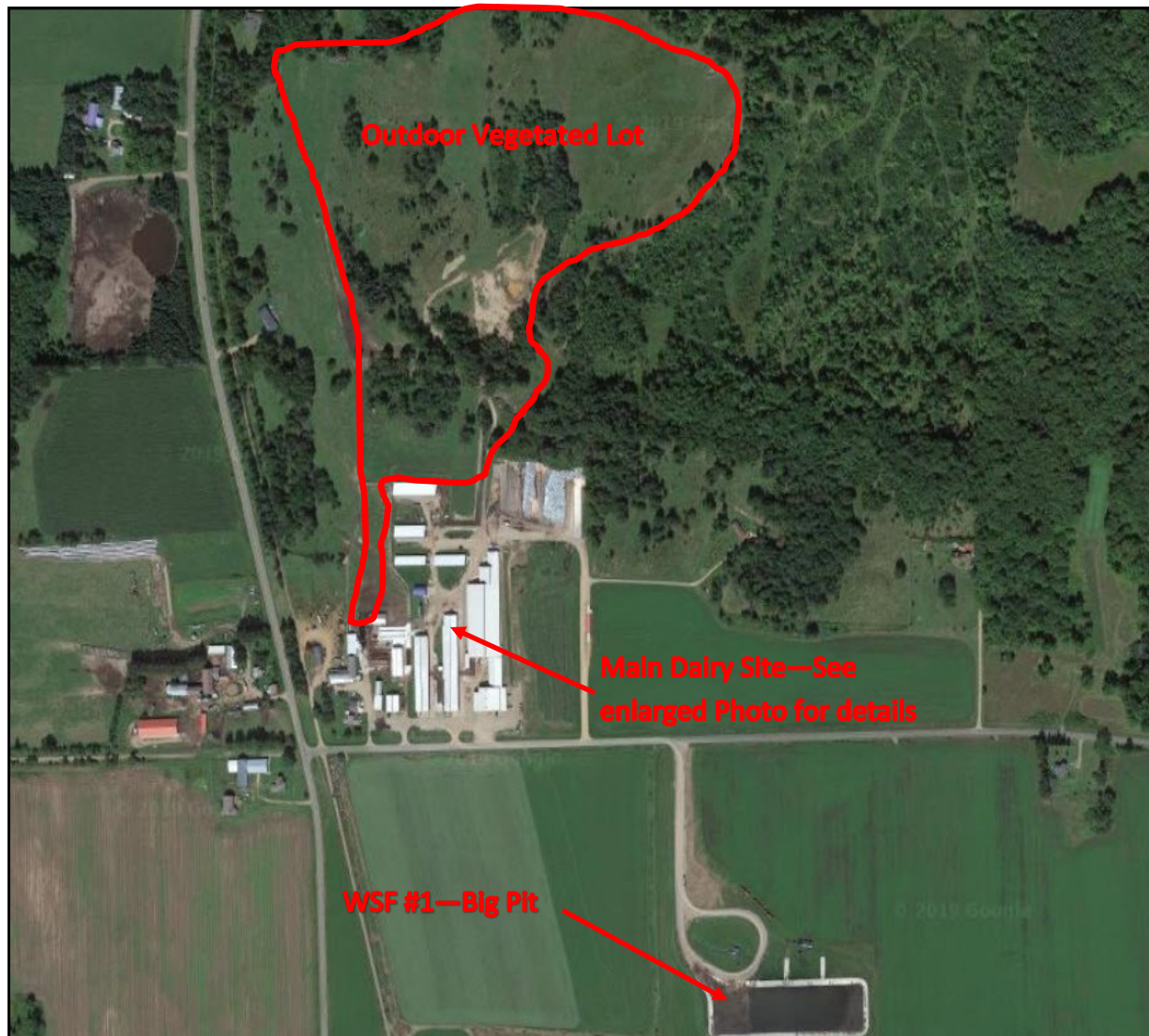
Other Participating DNR Staff: Holly Stegeman (Ag Runoff Specialist),

Introduction

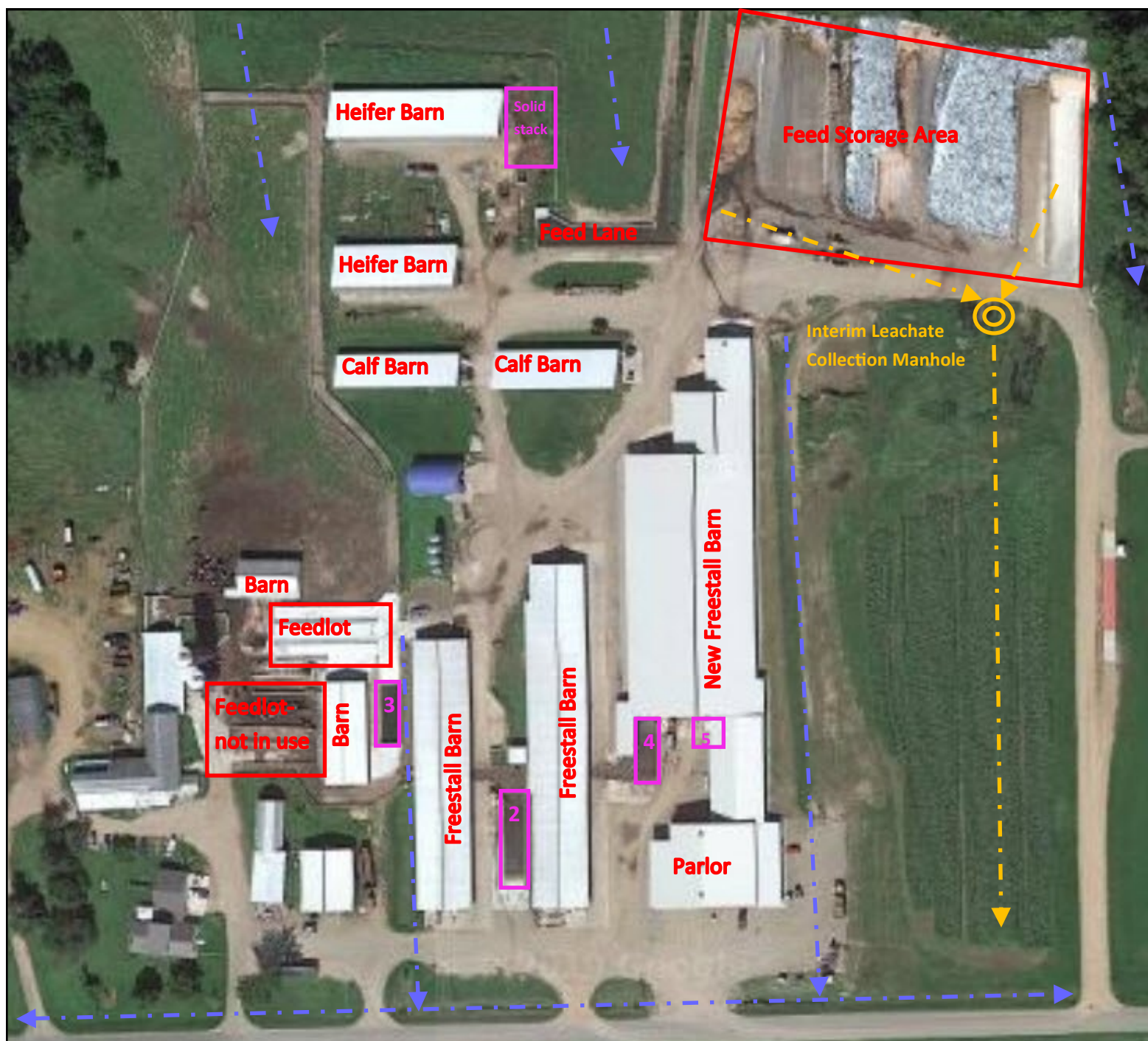
On Friday, December 13, 2019, Hanson & Stegemann met with Jason Nagel and the farm's nutrient management planner (Bolte) and engineer (Skwor) for the purpose of conducting a permit reissuance inspection.

Significant snowfall had fallen the previous day, but no precipitation on the day of the inspection. Weather was in the upper 20's , and partly sunny. No water samples were collected, and no discharge violations of the WPDES permit were observed

Site Overview Diagram:



Dairy Site: Storm water flow paths shown as blue dashed lines. Feedpad runoff flow paths shown as orange dashed lines. Waste Storage Facilities shown in purple and labeled by #.



SITE OBSERVATIONS :

Feedlot Runoff

Feedlot areas are managed to not have current or past indicators of discharges. Feedlot runoff control systems are well-maintained, in good repair and in compliance with permit requirements. Feedlot # 1 consists of 2 litter alleys and a central feeding alley. Manure & runoff gravity flow directly into WSF #3. See photos #32 & #33 below. The abandoned feedlot is directly south of feedlot #1. Photo #43 shows that this feedlot is no longer in use. Feedlot # 2 is located between the feedpad and the heifer barns. Manure from this lot is either scraped up and hauled daily or transferred to the solid stacking area just to the north.



Photo #:32 View of WSF #3 (Red Barn Pit) looking south. Arrows indicate runoff path from outdoor feedlot.



Photo #:33 View of outdoor feedlot #1 looking west.



Photo #43: View of abandoned lot just south of feedlot #1. Notice lot not in use



Photo #58: View of feedlot #2. looking Northeast.

Calf Hutch Areas

All calf hutch areas are under roof. Manure is either land applied or stored in the Solid Stacking Area.

Waste Storage Facilities & Process Wastewater

There are 4 liquid waste storage facilities on the farm. WSF #1 is the main storage facility with a capacity of approximately 10 million gallons of storage and located on the south side of the road. All freestall barns are bedded with sand. Sand Laden manure is scraped via skid steer to the closest Waste Storage Facility. (#2,#3, or #4). Manure & wastewater from these facilities is collected daily and manually transferred to the WSF #1 via tanker. The solid stacking site is located on the east end of the northern most heifer barn. Manure from the heifers barns & feedlot # 2 is stored here until land application. Liquids that collect in the solid stacking area are drained to a reception tank and transfer to WSF #1 as needed.

Solid and liquid waste storage facilities are managed to not have current or past indicators of discharges.

Solid and liquid waste storage structures are well-maintained, in good repair, and in compliance with permit





Photo #24: View of WSF #2(Tractor Pit) Collects manure from 2 old freestall barns. Transferred to WSF#1 daily.



Photo #26: Permanent marker in WSF #2



Photo #:31 View of WSF #3 (Red Barn). Collects manure from red barn & Feedlot #1. Transferred to WSF #1 daily.



Photo #37: Permanent marker in WSF #3



Photo #54: Solid Stacking area looking north.



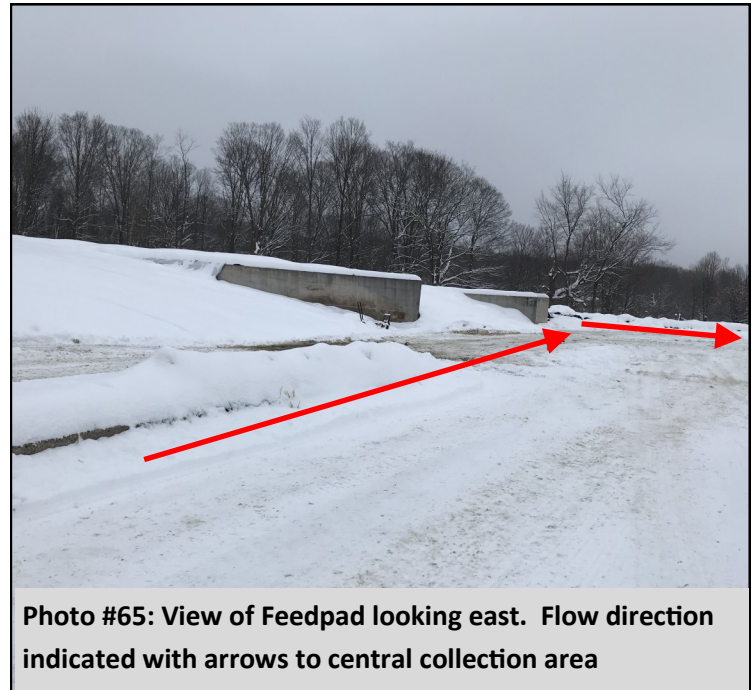
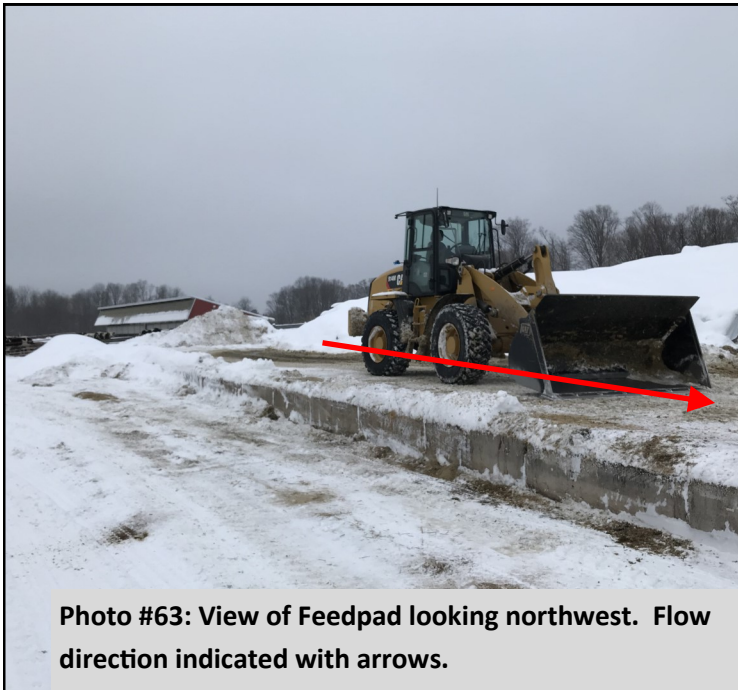
Photo #57: View of south wall of stacking area. Manhole located outside to collect runoff. Hidden under snow.

Feed Storage Area Runoff

Feed storage areas and associated process wastewater are managed to not have current or past indicators of discharges.

Feed storage area is sloped to drain to a central collection point. A small reception tank was installed (prior to 2017) at this location to collect leachate and runoff from the feedpad to act as an interim measure until permanent measures were installed. Landowner also informed the department of a feedpad perimeter drain that surface outlets near the south east corner of the pad. Landowner informed the department that he has never seen any flow from this outlet, but if it did, it would run towards the collection point. Any volume of runoff not collected in the reception tank would overflow into the field directly south of the feedpad. This field is kept in continuous grass and is mowed occasionally during the growing season.

Feed storage areas and runoff control systems are well-maintained, in good repair however they are not in compliance with permit requirements. According to section 2.6 of the permit schedules, department approved feedpad runoff controls were to be installed by 10/5/2015. Landowner acknowledged that approved runoff control measures were never installed. Nagel & Skwor said the farm will be applying for cost share through NRCS during the next available sign up. Plans & Specs would be finished during 2020 with installation in spring 2021.



Animal Mortality Disposal

Animal mortalities are collected and stored on a cement pad on the north end of the old freestall barn. The farm utilizes Antigo Rendering which picks up the mortalities within 24 hours.

Ancillary Service Areas

Preventative maintenance actions and visual inspections are occurring to minimize pollutant discharges from ancillary service and storage areas (i.e. storm water conveyance systems, driveways, etc.).

Management practices are implemented to sustain sufficient vegetative cover on CAFO outdoor vegetated areas.

RECORDS REVIEW

The permittee has a current WPDES Permit and Nutrient Management Plan onsite. Paper copy located in office.

The permittee provided a complete production site inspection records that are required to be retained. Paper copy located in office.

The permittee provided adequate documentation that the facility has a minimum of 180 days of liquid manure storage capacity.

The permittee provided land application records to demonstrate compliance with nutrient management plan requirements. Hauling records in NM Plan.

The permittee has copies of their emergency response and monitoring and inspection plans onsite. Paper copies in NM Plan.

The permittee is not up to date on required reporting and actions as specified in the Schedules section of permit. Section 2.6 required that department approved feedpad runoff controls be installed by 10/5/2015. To date, these runoff controls have not been installed.

SUMMARY

Substantial Compliance

The permittee is currently not in substantial compliance with the permit. Permittee has not completed the requirements of Schedules Section 2.6—Installation of Runoff Controls. Due to the fact that > 2 years have elapsed since existing plans & specs were approved, they must be resubmitted for approval by the department. Approval of these new plans will bring the farm back into substantial compliance.

Areas of Concern

Feedpad Leachate perimeter drain. Should be included as part of the department approved runoff control system.

MOL & MOS marker in WSF1 appears to be damaged or bent. Inspect marker to confirm elevations.

Permit Violations

Permit Schedules Section: 2.6 Runoff Control System—Installation. This system has yet to be installed.

Required Prior to Permit Reissuance

Resubmit Plans & Specs for department approval in accordance with Schedules Section 2.6. Existing Plans & Specs were not constructed in the 2 year timeframe and now need to be resubmitted for approval.

Required in Next Permit Term

Installation of Runoff Control System

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
647 Lakeland Road
Shawano, WI 54166

Tony Evers, Governor
Preston D. Cole, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711



11/18/2021

Jason Nagel
Nagel Dairy Farm LLC
N6841 County V
Deerbrook, WI 54424

WPDES Permit No. WI-0063819-02-0
Langlade County

Subject: 11/18/2021 Partial Compliance Inspection-Feedpad Runoff Controls

Dear Mr. Nagel:

On November 18, 2021 the Department of Natural Resources met with the representatives of Nagel Dairy Farms to conduct a partial compliance inspection to determine the status of the feedpad runoff collection system construction project. Department observations and a record of our conversations are included in the enclosed report.

The final pages of the report include a summary section identifying areas of concern as well as a list of action items to be completed.

Sincerely,

Brian Hanson
Agricultural Runoff Management Specialist
920-366-3302
brian.hanson@wisconsin.gov

Enc: November 18, 2021 Inspection Report

cc: Chris Arrowood - Langlade County LCD
Joe Baeten, Andrea Gruen - DNR
Chuck Bolte - VAS
Andy Skwor - MSA

CAFO Compliance Inspection Report



Inspection Date: 11/17/2021

Report Final Date: 11/17/2021

Operation Name: Nagel Dairy Farm, LLC

WPDES Permit #: WI-0063819-02-0

Farm Address: N6841 County Road V, Deerbrook, Wisconsin

On-Site Representative(s): Jason Nagel

Report Author: Brian Hanson: DNR Agricultural Runoff Specialist

Other Participating Agencies: None

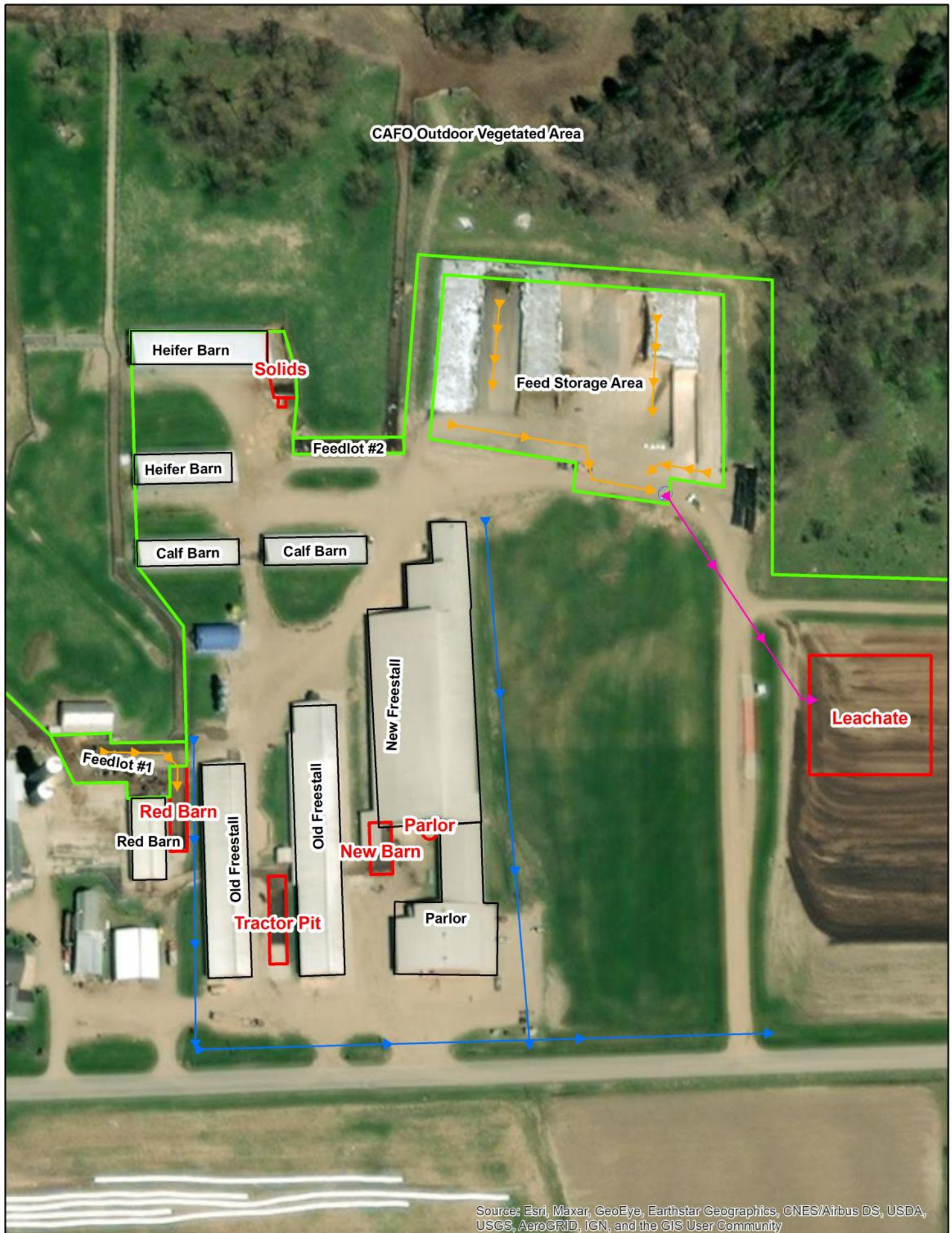
Introduction

On Thursday November 18, 2021 Hanson met with Nagel at 8:55 at Nagel Dairy Farm LLC site to conduct a post construction compliance inspection. The purpose of this inspection was to record the status of the feedpad runoff collection construction project. Only the feedpad, runoff collection system, and leachate basin were inspected. The rest of the production site was not inspected. No liquid precipitation had fallen recently and the temperature was in the 20's and cloudy. No permit violations were observed, and no water samples were collected. Hanson departed at approximately 09:20.

Site Overview Diagram



Site Overview Diagram (Main Dairy: orange lines = potential contaminated runoff, blue lines = stormwater flow, pink lines = waste transfer system)



SITE OBSERVATIONS :

Feedlot Runoff

Feedlot # 1 consists of 2 litter alleys and a central feeding alley. Manure & runoff gravity flow directly into Red Barn Pit. An abandoned feedlot is directly south of feedlot #1. Feedlot # 2 is located between the feedpad and the heifer barns. Manure from this lot is either scraped up and hauled daily or transferred to the solid stacking area just to the north. No feedlots were inspected during this visit.

Calf Hutch Areas

There are no calf hutches located on the farm at this time. Most calves and youngstock are raised by a separate custom heifer raising facility.

Waste Storage Facilities

There are 5 liquid waste storage facilities on the farm. The Big Pit is the main storage facility with a capacity of approximately 10 million gallons of storage and located on the south side of the road. All freestall barns are bedded with sand. Sand Laden manure is scraped via skid steer to the closest Waste Storage Facility (New Barn, Tractor Pit, Red Barn) for daily storage and then manually transferred to the Big Pit daily or weekly as necessary via tanker truck. The Leachate Pit was constructed in 2021 and is a concrete lined impoundment with a total capacity of approximately 840,000 gallons. The leachate pit will be used exclusively to store leachate & runoff from the feed storage area.

The solid stacking site is located on the east end of the northern most heifer barn. Manure from the heifers barns & feedlot # 2 is stored here until land application. Liquids that collect in the solid stacking area are drained to a reception tank and transfer to WSF #1 as needed.

Only the leachate pit was inspected during this visit.

Process Wastewater (other than feed storage area leachate/runoff)

Milking parlor washwater at the farm is collected and mixed with the manure in the New Barn WSF. Any liquid from this system is eventually stored in the Big Pit.

Feed Storage Area Runoff

The feed storage area is approximately 82,000 square feet in size and is located in the northeast corner of the production site. It consists of a series of bunkers with an asphalt floor and a concrete apron & collection basin. Asphalt repairs due to bunker wall removal, the concrete apron, and the concrete runoff collection basin were constructed in 2021. All surface runoff from the feed storage area is directed to the collection basin on the south side of the feed storage area. From here, the runoff gravity flows through a 24" pipe to the Leachate Basin for long term storage.

Feed storage area and runoff control systems are well-maintained, in good repair, and appear to be in compliance with permit requirements.

Animal Mortality Disposal

Mortalities are moved to cement pad near the old freestall building and picked up daily as needed by Antigo Rendering.

Ancillary Service Areas

Preventative maintenance actions and visual inspections are occurring to minimize pollutant discharges from ancillary service and storage areas (i.e. storm water conveyance systems, driveways, etc.). At the time of the inspection, all stormwater channels were well vegetated and other areas were free of manure & feed solids. Farm should continue to manage these areas to minimize the chance of runoff from the production area.

The farm does have a CAFO outdoor vegetated areas as part of their operation. This area is approximately 120 acres in size and is located directly north of the production site. The area is partially pasture and partially wooded.

RECORDS REVIEW

No Records were reviewed during this inspection.

Photo #:	0492
Date/Time of Photo:	11/18/2021 09:01
Photo By:	Brian Hanson
Photo Location:	Feed Storage Area
Photo Description: Standing on the south side of the FSA looking east: View of the newly installed runoff collection curb for the eastern portion of the FSA. Arrow indicates direction of runoff flow.	



Photo #:	0498
Date/Time of Photo:	11/18/2021 09:02
Photo By:	Brian Hanson
Photo Location:	Feed Storage Area
Photo Description: Standing on the south side of the FSA looking west: View of the newly installed runoff collection curb for the western portion of the FSA. Arrow indicates direction of runoff flow.	



Photo #:	0501
Date/Time of Photo:	11/18/2021 09:02
Photo By:	Brian Hanson
Photo Location:	Feed Storage Area
Photo Description: Standing on the southwest corner of the FSA looking east: View of the newly installed runoff collection curb for the western portion of the FSA. Arrow indicates direction of runoff flow. Collection basin visible in background.	



11/18/2021 09:02:32

Photo #:	0490
Date/Time of Photo:	11/18/2021 09:01
Photo By:	Brian Hanson
Photo Location:	Feed Storage Area
Photo Description: Standing on the southeast corner of FSA looking northwest: View of the newly created runoff collection basin on the south side of the FSA. Evidence of recent leachate staining shows flow paths into collection basin. Outlet pipe to long term storage highlighted.	



11/18/2021 09:01:10

Photo #:	0491
Date/Time of Photo:	11/18/2021 09:01
Photo By:	Brian Hanson
Photo Location:	Feed Storage Area

Photo Description:

Standing on the north side of the feed storage collection basin looking south & down: Closeup view of the runoff collection basin. Black 24" gravity outlet pipe visible on the left side. Tile drainage outlets from the feed storage perimeter drains are highlighted.



Photo #:	0480
Date/Time of Photo:	11/18/2021 08:58
Photo By:	Brian Hanson
Photo Location:	Leachate Pit

Photo Description:

Standing at the northwest corner of the newly constructed leachate pit looking southeast. View of the leachate pit with perimeter fence installed. MOL & MOS markers highlighted. They are PVC waterstop embedded in the concrete liner



Photo #:	0481
Date/Time of Photo:	11/18/2021 08:58
Photo By:	Brian Hanson
Photo Location:	Leachate Pit
Photo Description: Standing at the northwest corner of the leachate pit looking south: View of west edge of leachate pit. Outlet of 24" gravity pipe from FSA highlighted.	



Photo #:	0485
Date/Time of Photo:	11/18/2021 08:59
Photo By:	Brian Hanson
Photo Location:	Leachate Pit
Photo Description: Standing at the southwest corner of leachate pit looking northeast: View of leachate pit and emergency overflow channel located in the southwest corner. Emergency overflow channel was included in approved plans and only meant to be used if a storm greater than 25 year/24 hour occurs.	



SUMMARY:

Substantial Compliance

- The permittee is currently in substantial compliance with the permit.

Areas of Concern

- None

Permit Violations

- No violations were observed during the inspection.

Action Items

- Submit required post construction documentation for feedpad runoff collection system and Leachate Pit. DNR Project # R-2021-0013

Required in Next Permit Term

- If not submitted prior to permit reissuance, schedule to submit Post Construction documentation for DNR Project #. R-2021-0013